

REMARKS

Claims 1-5 are pending in the above-referenced application.
Claim 1 is amended.

In the above-referenced Office Action, the Examiner states that Applicant's proposed amendment to Claim 1, submitted with Applicant's response to the May 15, 2000 Office Action, was not entered. The Examiner states that such response was not fully responsive as had the amendment to Claim 1 been entered, the claimed invention would be directed to both a method of preparing a liquid and the semiconductor process using the liquid. Applicant respectfully asserts that such a conclusion is incorrect as Claim 1 as originally filed recites, among other things, "[a] method of preparing a liquid for a semiconductor fabrication process." Therefore, Applicant believes that the inclusion in the proposed amendment to such claim that reciting "employing the liquid ... for the semiconductor process" (emphasis added) could not change the scope or direction of Claim 1. None the less, and for the purpose of hastening the prosecution of the instant application, Applicant resubmits an amended Claim 1, absent the limitation that the Examiner believes is problematic. Applicant therefore requests reconsideration of the instant application in view of the remarks and amendments herein.

1 Claim Rejections under 35 U.S.C. §102:

2 *Erk et al*

3 Claims 1-5 stand rejected under 35 U.S.C. 102(b), as being
4 anticipated by US Patent 5,340,437 issued to Erk et al. (hereinafter Erk).
5 Applicant traverses.

6 Claim 1 recites, in pertinent part:

7 degassifying the liquid; and
8 injecting a gas into the liquid to regassify the liquid, the
9 regassification increasing a total dissolved gas concentration in the
liquid to greater than or equal to 200 ppb.

10 Erk neither teaches or suggests degassifying a liquid. Rather, Erk
11 injects a gas into an etchant at a pressure higher than atmospheric
12 pressure to dissolve the gas. Furthermore, as Erk states that the
13 pressurized etchant contains compressed bubbles in addition to dissolved
14 gas, Applicant respectfully asserts that Erk specifically teaches away from
15 any degassification process as such would eliminate such compressed
16 bubbles (column 3, line 23). In addition, as Erk is injecting gas into
17 the etchant so that the gas will form a froth when the pressure is
18 suddenly dropped, it would be inconceivable for the teachings of Erk to
19 be construed to teach or suggest degassifying the etchant prior to
20 injecting the gas (ibid, lines 24-30). Furthermore, while Erk does not
21 discuss the specific concentration of dissolved gases in the etchant after
22 the sudden drop in pressure, Applicant asserts that Erk teaches that such
23 concentration be as low as possible. Referring to column 3, lines 42-45,

1 Erk essentially states that nitrogen is preferred over carbon dioxide as
2 it has a lower solubility.

3 Erk does not teach, at least, the limitations of degassifying and
4 regassifying a liquid, as recited in Claim 1 of the instant application.
5 Therefore it necessarily follows that the Examiner's rejection of Claim 1
6 under 35 U.S.C. §102(b) cannot meet the statutory requirement of such
7 a rejection. Hence, the rejection must be withdrawn. For at least the
8 same reasons the rejection of Claims 2-5, depending from Claim 1, also
9 must be withdrawn. Applicant requests that the Examiner reconsider
10 Claims 1-5 in view of the remarks herein and pass them to issue in the
11 next action.

12
13 *Liu et al*

14 Claim 1 stands rejected under 35 U.S.C. 102(b), as being
15 anticipated by US Patent 4,817,652 issued to Liu et al. (hereinafter Liu).
16 Applicant traverses.

17 As stated above, Claim 1 recites, among other things, degassifying
18 and regassifying a liquid. Liu, like Erk discussed above, does not teach
19 or suggest such limitations. Rather Liu, like Erk, teaches injecting a gas
20 into a liquid while the liquid is under pressure and then rapidly
21 depressurizing the liquid to cause a plurality of bubbles to form (col. 5,
22 lines 15-40). As the forming of such bubbles is such a critical part of
23 Liu's invention, it would be inconceivable for the teachings of Liu to be

1 construed as teaching or even suggesting a degassification process prior
2 to injecting the gas into the pressurized etchant (ibid).

3 As Liu does not teach the limitations of degassifying and
4 regassifying a liquid, as recited in Claim 1 of the instant application, it
5 necessarily follows that the Examiner's rejection of Claim 1 under
6 35 U.S.C. §102(b) cannot meet the statutory requirement of such a
7 rejection. Hence such a rejection must be withdrawn. Applicant
8 requests the Examiner reconsider Claim 1 in view of the remarks herein
9 and pass it to issue in the next action.

10 With regard to the prior art made of record and not relied upon
11 in the current action, Applicant respectfully asserts that none teach or
12 even suggest degassifying and regassifying a liquid and then using the
13 regassified liquid of the increased total gas concentration in a
14 semiconductor process.

15 In summary, Applicant has shown that each of the rejections in
16 the above-referenced Office Action is overcome. It follows then that all
17 rejected claims should be immediately allowed since none of the art cited
18 in the above-referenced Office Action, or any other art of record in the
19 instant application, discloses, teaches or even suggests all the limitations
20 recited in any or all of the pending claims. Action to this effect is
21 requested. If the Examiner's next action is to be anything other than
22 a Notice of Allowance, or if the Examiner plans to issue a Notice of
23 Allowance but believes that there are other or additional reasons for

1 such allowance of the pending claims, the undersigned respectfully
2 requests a telephonic interview.
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4

5 Respectfully submitted,

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7 Dated: Oct 24, 2000

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